

CLAIMS:

1. A low-pressure mercury vapor discharge lamp comprising a discharge vessel (10),
the discharge vessel (10) enclosing, in a gastight manner, a discharge space (11) provided with a filling of mercury and a rare gas,
5 the discharge vessel (10) comprising discharge means for maintaining a discharge in the discharge space (11),
while at least a portion of an inner wall (12) of the discharge vessel (10) is provided with a transparent layer (16), and
a side of the transparent layer (16) facing the discharge space (11) is provided
10 with a luminescent layer (17) comprising a luminescent material,
characterized in that
a side of the luminescent layer (17) facing the discharge space (11) is provided with a further transparent layer (18).
- 15 2. A low-pressure mercury vapor discharge lamp as claimed in claim 1,
characterized in that the transparent layer (16) and the further transparent layer (17) comprise
a material selected from the group formed by oxides of scandium, yttrium, and
a further rare-earth metal, and/or
a material selected from the group formed by borates of an alkaline-earth
20 metal, scandium, yttrium, and a further rare-earth metal, and/or
a material selected from the group formed by phosphates of an alkaline-earth
metal, scandium, yttrium, and a further rare-earth metal.
- 25 3. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2,
characterized in that the alkaline-earth metal is calcium, strontium, and/or barium.
4. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2,
characterized in that the further rare-earth metal is lanthanum, cerium, and/or gadolinium.

5. A low-pressure mercury vapor discharge lamp as claimed in claim 3 or 4, characterized in that the oxide is yttrium oxide and/or gadolinium oxide.
6. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2, 5 characterized in that the transparent layer (16) and the further transparent layer (18) have a thickness of between 5 nm and 200 nm.
7. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2, characterized in that the luminescent material comprises a mixture of green-luminescing, 10 terbium-activated cerium-magnesium aluminate, blue-luminescing barium-magnesium aluminate activated by bivalent europium, and red-luminescing yttrium oxide activated by trivalent europium.
8. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2, 15 characterized in that the discharge vessel (10) is made from a glass comprising silicon dioxide and sodium oxide, with a glass composition comprising the following essential constituents, given in percentages by weight:
- | | |
|-----------------------|-----------|
| SiO_2 | 60 – 80%, |
| Na_2O | 10 – 20%. |
- 20
9. A low-pressure mercury vapor discharge lamp as claimed in claim 8, characterized in that the glass composition includes the following constituents:
- | | |
|-----------------------|--------------------|
| SiO_2 | 70-75% by weight |
| Na_2O | 15-18% by weight |
| K_2O | 0.25-2%. by weight |
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10. A compact fluorescent lamp comprising a low-pressure mercury-vapor discharge lamp as claimed in claim 1 or 2, characterized in that a lamp housing (70) is attached to the discharge vessel (10) of the low-pressure mercury-vapor discharge lamp, 30 which lamp housing is provided with a lamp cap (71).
11. A compact fluorescent lamp as claimed in claim 10, characterized in that the discharge vessel (10) of the low-pressure mercury-vapor discharge lamp is surrounded by a light-transmitting envelope (60) which is attached to the lamp housing (70).